



RealEight User's Manual

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About the program

RealEight is a sample-based 8-string electric guitar virtual instrument, ideal for lead and rhythm, and even bass tracks in rock & metal style compositions.

RealEight provides incredible playability based on easy-to-use keyboard layout as well as the advanced key/pedal/velocity switch system allowing a keyboardist to perform guitar parts with a whole new level of realistic expression.

RealEight covers practically all sounds, articulations, and techniques a professional guitarist can produce on his 8-string electric guitar, including mute, bridge mute, harmonics, pinch harmonics, sliding, scraping, etc...

24-bit high quality dry samples recorded directly from pick-ups let you easily create any desired guitar sound using your favorite amplifier simulator.



RealEight features:

- Incredibly deep sound covering huge 5-octave note range (8 strings, 24 frets, drop E tuning, expandable to drop B tuning).
- Ready-to-use Double Track and Quad Track patches with a single MIDI input.
- Bass mode: drops pitch to 8-string bass guitar tuning, letting you produce bass parts as well.
- Advanced Humanize section allowing to add realism to the performance both live and step-recorded in a MIDI track.
- Multi-channel layering technology, incorporating a custom library of specially recorded samples taken from every fret of all 8 strings of a real guitar.
- The unique Floating Fret Position technology, which imitates change of fret position of a guitarist's hand on the neck. This gives you the possibility of playing on up to 200 guitar frets using just 60 keys of a standard keyboard!

Installing RealEight

Installing RealEight PC version

Double-click RealEight Installer file and follow the on-screen instructions.

At the end of installation process RealEight Bank Manager will open and extract sound bank optimized for particular sample rate which allows using Quick Load mode realized in RealEight.

In RealEight Bank Manager dialog check the appropriate sample rate box you normally use in your audio work. Click Apply button to start sound bank extracting. Close Bank Manager when sound bank installation is completed. Note, that higher sample rate value will install larger target sound bank.

Important! If Bank Manager window doesn't open automatically during installation process you have to run it manually from *Start menu/Program Files/MusicLab/RealEight*, or alternatively go to RealEight installation folder (by default: *C:\Program Files\MusicLab\RealEight*) and double click *StgMan.exe* file.

Note that if you want to change sample rate for your audio work you have to run RealEight Bank Manager and create sound bank optimized for the new sample rate value.

In case your VST2 plugins folder is not registered correctly RealEight installer will not automatically install *RealEight.dll* in the correct folder. So to let your VST host 'find' RealEight you have to set your VST host to scan MusicLab VST2 folder below.

Please note of RealEight installation folders:

Windows 64-bit

64bit: *C:\Program Files\MusicLab\RealEight*

32bit: *C:\Program Files (x86)\MusicLab\RealEight*

64bit VST2: *C:\Program Files\Common Files\MusicLab\VST2*

64bit VST3: *C:\Program Files\Common Files\VST3*

32bit VST2: *C:\Program Files (x86)\Common Files\MusicLab\VST2*

32bit VST3: *C:\Program Files (x86)\Common Files\VST3*

64bit AAX: *C:\Program Files\Common Files\Avid\Audio\Plug-Ins*

32bit AAX: *C:\Program Files (x86)\Common Files\Avid\Audio\Plug-Ins*

Windows 32-bit

32bit: *C:\Program Files\MusicLab\RealEight*

32bit VST2: *C:\Program Files\Common Files\MusicLab\VST2*

32bit VST3: *C:\Program Files\Common Files\VST3*

32bit AAX: *C:\Program Files\Common Files\Avid\Audio\Plug-Ins*

Installing RealEight Mac version

Double-click RealEight Installer icon and follow the on-screen instructions.

At the end of installation process RealEight Bank Manager will open and extract sound bank optimized for particular sample rate which allows using Quick Load mode realized in RealEight.

In RealEight Bank Manager dialog check the appropriate sample rate box you normally use in your audio work. Click Apply button to start sound bank extracting. Close Bank Manager when sound bank installation is completed. Note, that higher sample rate value will install larger target sound bank.

Important! If Bank Manager window doesn't open automatically during installation process you have to run it manually - open RealEight installation folder (by default: *Macintosh HD/Applications/RealEight*) and double click *RealEight icon/main menu/RealEight/Sound Bank Manager*.

Note, that if you want to change sample rate for your audio work you have to run RealEight Bank Manager and create sound bank optimized for the new sample rate value.

Please note of RealEight installation folders:

Application: *Macintosh HD/Applications/RealEight*

32bit/64bit AU: *Macintosh HD/Library/Audio/Plug-ins/Components/RealEight.component*

32bit VST2: *Macintosh HD/Library/Audio/Plug-ins/VST/RealEight.vst*

64bit VST3: *Macintosh HD/Library/Audio/Plug-ins/VST3/RealEight.vst3*

32bit/64bit AAX: *Macintosh HD/Library/Application Support/Avid/Audio/Plug-ins/RealEight.aaxplugin*

Launching RealEight

Launching RealEight as a VST/AU/AAX instrument:

1. Open your DAW (host application).
2. Create stereo Software Instrument track.
3. Add RealEight to the track.
4. Open the RealEight window by double-clicking the RealEight button/icon.
5. Launching RealEight multi output version:
One of the most powerful RealEight features is the ability to simulate 'double-tracked' or even 'quad-tracked' guitar part. To use this feature you must run RealEight multi output version, RealEight (4 mono) or RealEight (4 stereo), depending on mono or stereo amps/FXs you are going to use. These plugins provide 4 outs in your DAW's mixer. In a DAW's mixer pan each output being used, then add the amps/FXs of your choice on each channel.
6. Launching RealEight as a standalone version:
PC: In Start Menu go to *Programs/MusicLab/RealEight* folder and click on the RealEight icon.
Mac: Run *Applications/RealEight/RealEight*.

Virtual Fretboard

In RealEight we have realized the **Floating Fret Position** principle, which imitates change of fret position of a guitarist's hand on the neck. This gives a unique possibility of playing on up to 200 guitar frets using just 60 keys of a standard keyboard! This, along with the fact that we have sampled 24 frets of all eight strings for all of our RealEight sounds, allows you to emulate a guitar performance with maximum sonic accuracy.

In the center of the RealEight window is the virtual **Fretboard**, one of the important elements of the plug-in, which allows you to visualize and control the Floating Fret Position while playing the guitar part.



The Fretboard has a number of functions:

1. **Preview** - allows audio previewing the loaded guitar patch by simply clicking on strings.
2. **Display notes** - shows the performed notes (with names) in accordance with visual representation on the fretboard and real sound (you see the notes displayed on string and fret of exactly the same sound samples currently playing).
3. **Fret Position Auto** control (the **Auto** button is pressed) - realizes automatic fret position change in Solo and Harmony modes, which moves the 'Capo' strip along the Fretboard depending on the sequence of performed notes.
4. **Fret Position Manual** control (the **Auto** button is released) - allows manually changing fret position by right clicking on any fret. A 'Capo' strip will appear on the fretboard, which will prevent playing samples from any fret lower on the neck than the 'Capo' position (except for the 8th string).

Virtual Keyboard

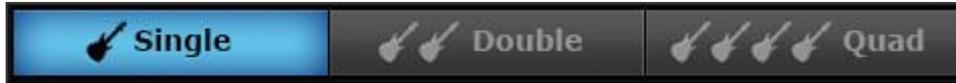
In the lower part of RealEight window you see a virtual keyboard that visualizes RealEight keyboard layout (Main and Repeat zones), indicates activated Key Switches, and shows all MIDI notes incoming to RealEight or played on virtual fretboard with a mouse:



Additionally, virtual keyboard duplicates the external MIDI keyboard input, so everything you can play by MIDI can be produced on virtual keyboard with a mouse. Shift-clicking will hold down the pressed key allowing to preview Key Switch FXs.

RealEight Guitar Patches

RealEight installs three versions of RealEight soft instrument: RealEight, RealEight (4 mono), RealEight (4 stereo). RealEight is normal plugin with single stereo output, RealEight (4 mono) provides 4 mono outputs in your DAW, while RealEight (4 stereo) provides 4 stereo outputs respectively. Choosing between them depends on what guitar patch you are going to use.



RealEight has three guitar patches loadable by clicking on the appropriate button: Single, Double, and Quad.

Single

On launching RealEight will automatically load Single guitar patch, which is mono guitar sample set and can be used in any version of RealEight plugin.

Double

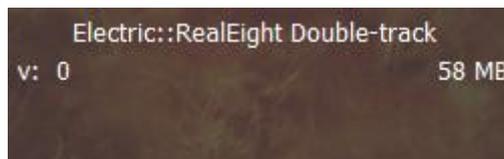
Double, when loaded in RealEight single output version, is a stereo guitar patch panned hard left and hard right.

When used in multi output versions Double patch gives you the ability to easily simulate double-tracked guitar parts. To use this feature you must run RealEight (4 mono) or RealEight (4 stereo) version – these plugins provide 4 outs in your host’s mixer. Double patch will use first two of them. In host’s mixer, pan each output being used hard left and hard right, then add the amps + FX of your choice. For best results, we recommend different amps/settings for each output. Play or sequence notes on the MIDI track assigned to RealEight, and enjoy a wide, double-tracked sound!

Quad

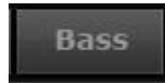
Quad patch can only be used in RealEight multi out version. Quad patch gives you ready-to-use quad-track output with single MIDI In (keyboard or track), allowing you to easily create quad-tracked guitar parts. For quad-tracking, the process is the same as for double-tracking, but with FOUR audio outputs. You can try panning these outputs differently in your host mixer, too (e.g.: 100%Left - 80%Left - 80%Right - 100%Right).

The loaded patch name will be displayed on the central Info screen.



Bass mode

We've implemented special Bass mode allowing to use RealEight for bass parts as well.

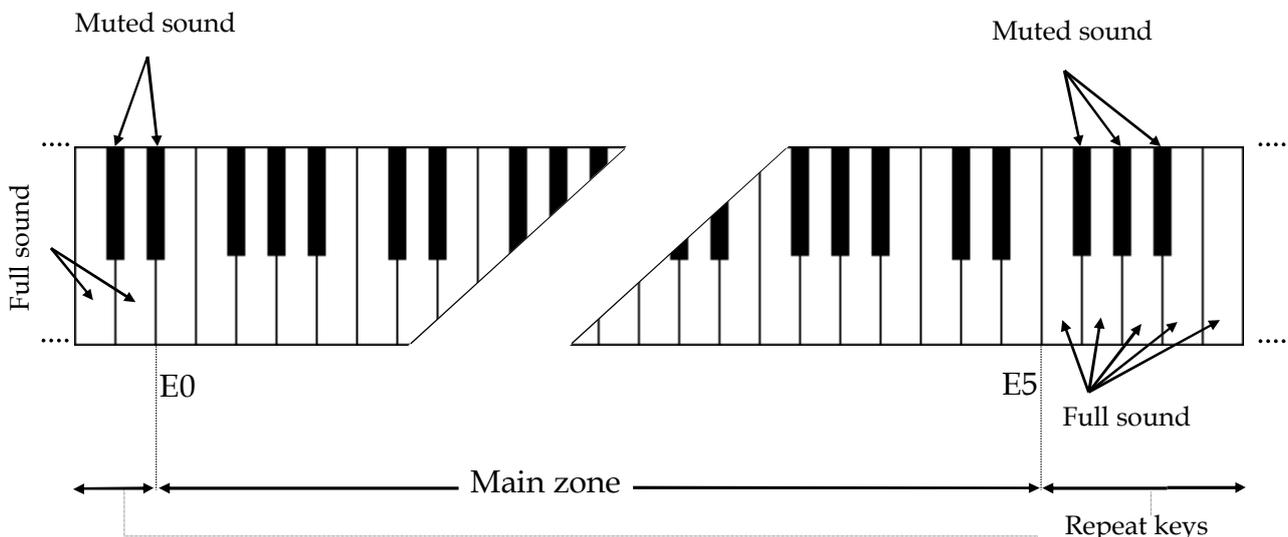


Pressing Bass button will drop pitch to 8-string bass guitar tuning: F#-B-E-A-D-G-C-F. Notes played by MIDI will now trigger lower by octave sounds, thus keeping the whole keyboard layout unchanged and letting you use the same key switch presets in both modes.

Performance. Keyboard Layout and Controls

User Keyboard Layout

When connected to RealEight MIDI input the external keyboard is divided into 3 zones: **Main zone** (E0 - E5), left (C-1 - D#0) and right (F5 - A6) **Repeat zones**.



With Drop B tuning selectable in Bass zone left combo box, the left part of **Main zone** expands to B-1.

Main zone serves for playing polyphonic melodic parts, while any key of the Repeat zone repeats notes and chords played in the Main zone. This way of keyboard mapping allows you to play guitar parts with 2 hands - you play various notes or chords in the Main zone with one hand and repeat them by pressing keys in Repeat zone with the other hand, easily emulating guitar up/down stroke technique.

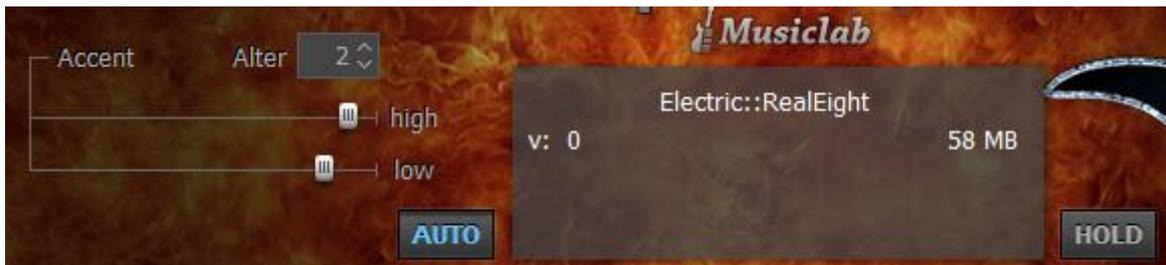
Repeat Key zone functions:

- You can repeat notes and chords played in the Main zone (any white key repeats the full sound, while black key repeats the muted sound).

- Also with the keys of Repeat zone you can alternate up/down/muted strokes to produce strumming and tremolo techniques. Up and down strokes are triggered by neighboring keys for both white and black keys of the Repeat zones, like C - up stroke, D - down stroke, C# - muted up stroke, D# - muted down stroke, and so on.
- Repeat keys, when activated in Key Switch panel, can also be used as Key Switches to switch on various FXs.

Performance Controls

RealEight provides you with multiple permanent and switchable controls allowing you to easily add various specific guitar articulations and effects to your performance.



On the upper part of RealEight window (above the fretboard) you see a number of buttons and slider controls.

Hold (on/off) - actually Smart Sustain option. When Hold button is on, any pressed and held key in the Main zone can be used for sustaining the following notes.

Auto (on/off) - toggles between Auto and Manual mode of Floating Fret Position. Manual mode allows changing the fret position by right-clicking on the Fretboard.

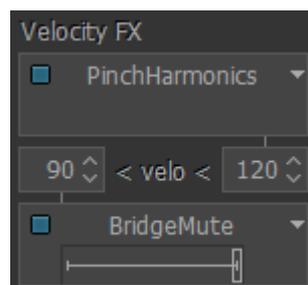
Accent High (0-127) - adjusts the velocity threshold between hard and hardest performance dynamics.

Accent Low (0-127) - adjusts the velocity threshold between soft and hard performance dynamics.

Alter samples (1-5) - provides 5 positions of randomly alternating samples while performing repetitive notes (position 1 provides up to 3 different samples, while position 5 provides up to 10 different samples), which eliminates the unnatural 'machine-gun' effect.

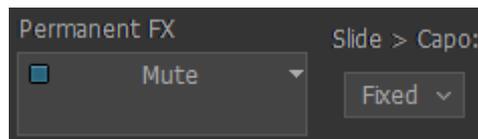
Velocity Switch Effects

On the left lower part of RealEight window you see **Velocity Switch FX** section including two FX boxes:



Using the Velocity Switch FX controls, two FXs can be dynamically engaged depending on the velocity of the MIDI notes played. For low velocity notes, set the numeric box on the left side to the threshold at which notes played at a lower velocity will trigger the FX selected in the lower FX selector. For high velocity notes, set the numeric box on the right side to the threshold at which notes played at a higher velocity will trigger the FX selected in the upper FX selector. As notes are played below or above the two thresholds, the two FX selector boxes will change to a light grey color to indicate they are being engaged. As with all FX selectors, each of the two Velocity Switch FX selector boxes have a FX Enable LED button so you can enable one, both or neither.

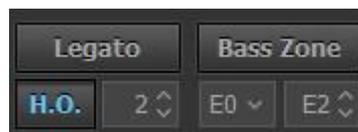
Permanent Effects



Permanent FX Box - allows selection of Effect in the pull-down menu and activate it by clicking on **FX Enable** LED button in the upper left corner.

Slide > Capo - controls the movement of the capo along the fretboard while performing either a Slide or Hammer-On effect. You can select any of 3 modes in a Slide>Capo combo box:

- **Fixed** - Capo is not affected. All notes will be played to the right of Capo position moving from string to string (except for the notes on the 6th string which the capo does not affect).
- **Ignore** - Capo is not affected. Slides ignore Capo position; notes will be performed along the string moving to another string only in case of reaching first or last fret.
- **Move** - Capo moves with Slide or H.O. (Hammer-on) notes along the fretboard.



Legato - enables producing notes played legato within semi-tone or whole-tone from each other without triggering attacks and being in mono mode (next will mute previous). The effect is as if the notes were played on the same guitar string when only the first note is picked and the following notes are played by the left hand alone.

H.O. - enables Hammer-On Effect with automatic Pull-Off on key release, affected note range is specified (in semi-tones) in numeric box.

Bass Zone - splits the Main Zone of keyboard into two parts to allow individual performance techniques for each part. The Bass Zone button is toggled on and off. There are two additional combo boxes to set the lower note (E0, or B-1) and the upper note (ranging from E1 to E4) of the zone. Bass zone notes have a stronger velocity curve and are NOT affected by:

- **Mute keys** - this allows performing mutes and repetitions on the notes played outside Bass zone without cutting bass notes.

- **Velocity Switch FX** - this allows applying velocity switches only to notes played outside Bass zone while playing bass notes without the velocity switch.

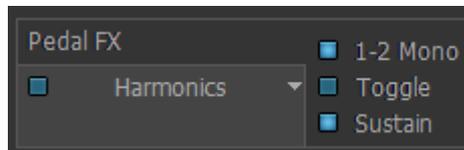
Left combo box works independently of Bass zone button and allows to expand the guitar range to **Drop B** tuning by selecting B-1 as the lower note for the 8th string.



In **Bass mode** this selection is disabled.

Pedal Switch Effects

You can trigger various RealEight Effects selected in **Pedal Switch FX** box by pressing normal Sustain Pedal controller.



Pedal Switch FX box has five different controls:

- **1-2 Mono** LED (On/Off)
- **FX Enable** LED (On/Off)
- **FX Selection** pull-down menu
- **Toggle** LED (On/Off)
- **Sustain** LED (On/Off)

1-2 Mono:

On - sustains all notes except for the notes played at a semi-tone or whole-tone interval (step-wise melodic run): the next note 1-2 steps apart mutes the previous one as if played on the same guitar string, while the thirds and larger intervals are being sustained.

Off - pedal sustains all notes played non-legato, and legato (in the case Hammer-On and Legato FXs are off).

FX Enable LED indicates if the Pedal FX is enabled or not. When LED is On, the FX is enabled when the Sustain Pedal is pressed.

FX Selection pull-down menu selects which FX is controlled by the Sustain Pedal.

Toggle:

On - indicates that the FX is toggled on and off each time the Sustain Pedal is pressed.

Off - indicates that the FX is only enabled when the Sustain Pedal is kept pressed. When the Sustain Pedal is not pressed, the FX is not enabled.

Sustain:

On - indicates that the Sustain Pedal both turns on the FX as well as sustains notes.

Off - indicates that the Sustain Pedal controls only the FX, and no notes are sustained.

Modulation Switch Effects



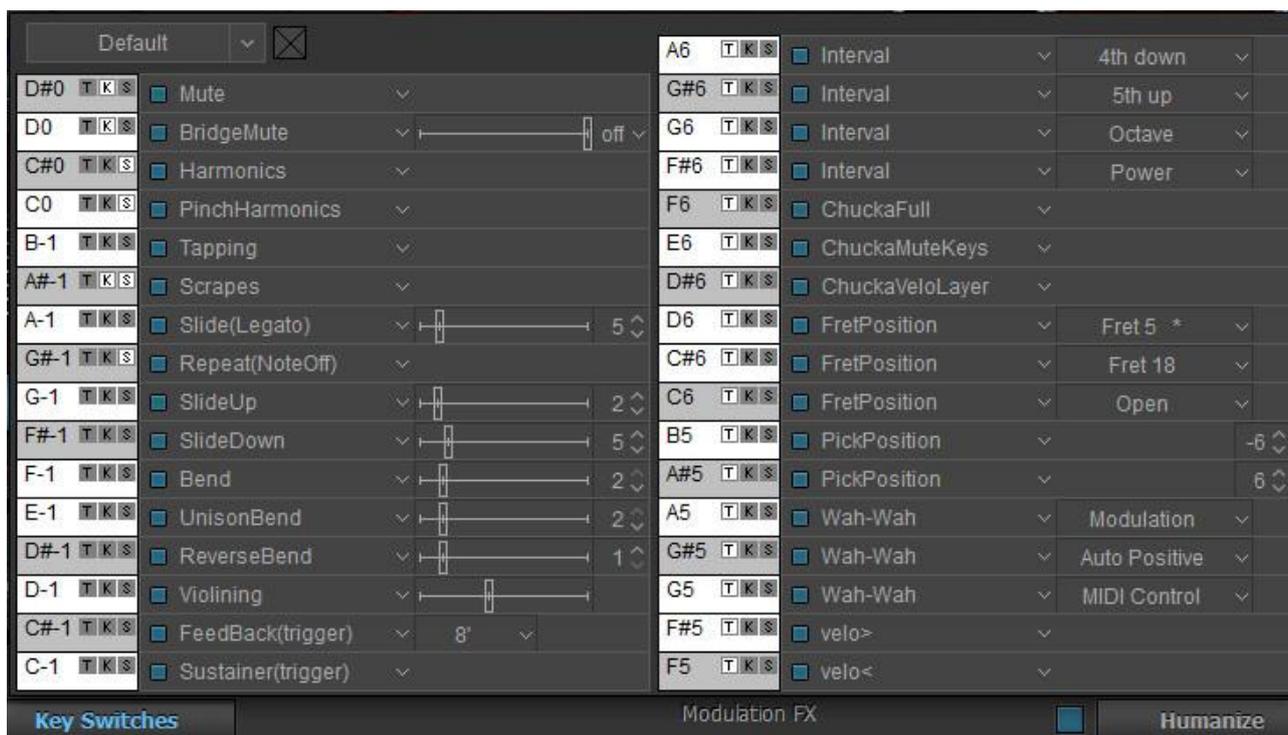
You can switch on various RealEight Effects selected in Modulation Switch FX box by simply moving normal Modulation Wheel of your MIDI keyboard. Releasing Modulation Wheel to '0' position turns the Effect off.

Note, when Modulation FX box is activated effect assigned in M.W. box at the right will not work.

Key Switch Effects

RealEight numerous guitar Effects can be triggered using the advanced Key Switch system allowing to assign various FXs on Repeat Zone keys as well as easily create and use custom presets in RealEight **Key Switch panel**.

To open Key Switch panel click on Key Switches button on the left lower part RealEight window:



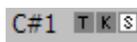
Key Switch panel

You see two columns of FX boxes corresponding to Left and Right Repeat Zone keys (C-1 through D#0 for the Left zone, F5 through A6 for the Right zone).

Select Effect for a key in pull-down menu and click **FX Enable LED** button in the left part of FX box to activate it. Now pressing the correspondent key of Repeat zone will turn on selected FX, and change the box color to a light grey to indicate that FX is turned on.

Note, that activating **FX Enable LED** of any key switch will also be displayed on the RealEight virtual keyboard. Moreover triggering FX will also change color of a virtual keyboard key to a light blue, giving you full visual control.

Three small buttons (clickable on/off) at the left of each FX box allow additional control of the Key Switch and FX:



'T' button ('toggle'):

On - indicates that the FX is toggled on and off each time the key switch is pressed (releasing the key is ignored).

Off - indicates that the FX is only enabled while the key is kept pressed (releasing the key turns the FX off).

'K' button ('key through') - when activated allows to switch FX and let the key switch simultaneously function as normal Repeat key (white for Full sound, black for Muted sound).

'S' button ('sustain') adds sustain function to FX, similar using the Sustain Pedal.

Note, Right Key Switches (Right Repeat zone) are 'toggles' by default, while Left Key Switches (Left Repeat zone) are not.

You can save all setting made in Key Switch panel as user presets for future use.

To create a preset, click on Preset combo box to activate Edit mode, type in the preset name, and press Enter on computer keyboard. Preset will be saved within RealEight and added to preset list.



To delete preset simply click on Delete icon at the right.

MIDI Controller pane



Velo curve - select the output velocity curve for your performance by pressing one of 4 buttons.

You can assign various guitar effects to standard MIDI controllers:

- **P.B. Up** (Pitch Bender, upper combo box) - Off, Pitch, Slide, VeloAdd, MonoBend, Sustainer (triggers Sustainer FX simultaneously with pitch shifting).
- **P.B. Down** (Pitch Bender, lower combo box) - 'same as Up', Pitch, Slide, VeloAdd, MonoBend, Sustainer (triggers Sustainer FX simultaneously with pitch shifting).
- **M.W.** (Modulation Wheel) - Pitch, Slide, Modulation.
- **A.T.** (After Touch) - Pitch, Modulation, Sustainer, FeedBacker.

In the combo box to the right adjust the maximum range of pitch shifting/sliding (in semitones). Modulation envelope is adjusted in Tune panel (Left Menu bar in the upper left corner of RealEight window).

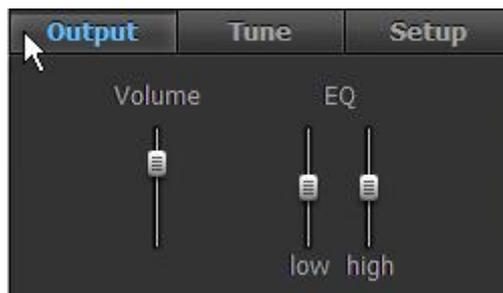
Setup and Sound Controls

Left Menu bar



In the Left Menu bar you can get access to 3 panels to make global settings: **Output panel**, **Tune panel**, and **Setup panel**.

Output panel

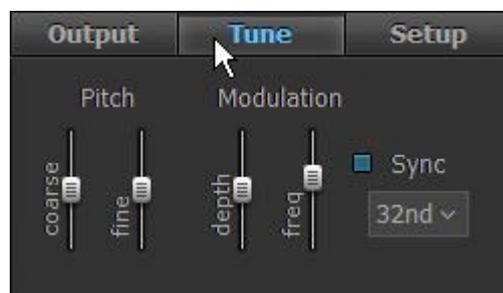


Volume (+10/-30db) - adjust output volume.

EQ - adjust internal equalizer parameters:

- High (+/- 10db).
- Low (+/- 10db).

Tune panel



Pitch - adjust the master pitch:

- Coarse (+/-12 semitones).

- Fine (+/-100 cents).

Modulation - adjust the modulation envelope affected by Modulation controller (MIDI CC#1):

- Depth (0-100%).
- Freq (0.2 – 8.0 Hz).
- Sync LED button (on/off) - when activated the modulation rate will be synced with host's tempo.
- Duration combo box - select note duration value in pull-down menu to match modulation rate you need.

Setup panel



Keyboard range (C-1- C7) – set the range of your keyboard.

Input device – select between Keyboard and Guitar MIDI input mode:

Keyboard – normal Omni-Channel MIDI input

Guitar – multi-channel MIDI Input, channels 1-8 are mapped to guitar strings 1-8

Octave – shift MIDI Input notes by octaves (up or down) in case your keyboard controller doesn't have transpose option.

P.B. and M.W. on pressed keys – when activated allows to polyphonically use Pitch Bend, Modulation Wheel, and Aftertouch controllers with Sustain Pedal, i.e. the controllers will affect only on actually pressed note(s), while other note(s) being sustained with a Pedal but physically released will stay untouched. When turned off all controllers work normally.

Q.Load – pressing Quick Load button allows to quickly load samples and drastically save RAM.

Reset – resets all modified parameters in all modes to their factory values.

Output mode – select between Audio, MIDI, Both options.

Using MIDI Out functionality, the actual MIDI output, including arpeggios, patterns, and strums generated by notes you play in the "Repeat Zones", can be played back through any other synth or sampler. Most (but not all) DAWs that support MIDI input from a virtual synth support recording its MIDI output as well.

Here are a few reasons you might want to take advantage of MIDI Output functionality:

1. To double the RealEight sound with another synth/sampler
2. To replace your guitar part with another sound altogether
3. To generate a MIDI file that's readable by your notation program

The "Audio/MIDI/Both" options are important, and as follows:

- **Audio:** You'll hear the RealEight samples only, just as you would if you weren't sending MIDI Out to your synth.
- **MIDI:** You'll hear only the synth being driven by the MIDI output from RealEight. The RealEight samples will not sound.
- **Both:** You'll hear both the RealEight samples and the synth being driven by the MIDI output from RealEight.

Select "MIDI" or "Both" to take advantage of MIDI Out functionality.

Right Menu bar



In the Right Menu bar you can get access to Timing panel, 2 Mixer panels, and Wah-Wah Effect setting:

Timing panel



Strum time (20-200ms) - adjusts delay for more than one note played simultaneously in Main zone, as well as the strum time between chord notes played as Interval FX.

Attack time (0-100%) - allows shortening/lengthening the attack of a sound. The shortest (0%) gives smaller latency, but sounds less natural.

Release time (50-200%) - adjusts how long the note sounds after releasing the key (MIDI note end).

Multi-Trk Delay (0-400%) - controls proportional delay between tracks in Double and Quad patches for wider panning.

Mixer panel



2 Mixer sections allow adjusting the volume of various noise effects and additional sounds that form the modeled guitar sound.

Noises:

- Fret - volume and on/off of a fret noise.
- Release - volume and on/off of a release noise.
- Pick - volume and on/off of additional pick noise.

Sounds:

- Mute - volume of muted sound triggered by Repeat zone keys and used as FX.
- Switch FX - volume of all additional sounds (Key/Pedal switch FXs).

FX Mixer panel



FX Mixer panel lets you adjust volume for all FX sounds/noises individually.

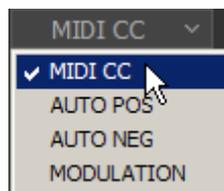
Wah-Wah panel



Wah-Wah panel allows switching on Wah-Wah Effect, as well as selecting any of 4 Wah-Wah modes available in RealEight and adjust parameters for each mode.

Press FX Enable LED in the upper left corner to switch on the Wah-Wah Effect.

Select Wah-Wah mode in a combo box:



MIDI CC - Wah frequency center is controlled by MIDI CC (set the needed CC# in numeric box), adjust Filter quality (Qual), lowest frequency (Freq), highest frequency (Freq (max)).

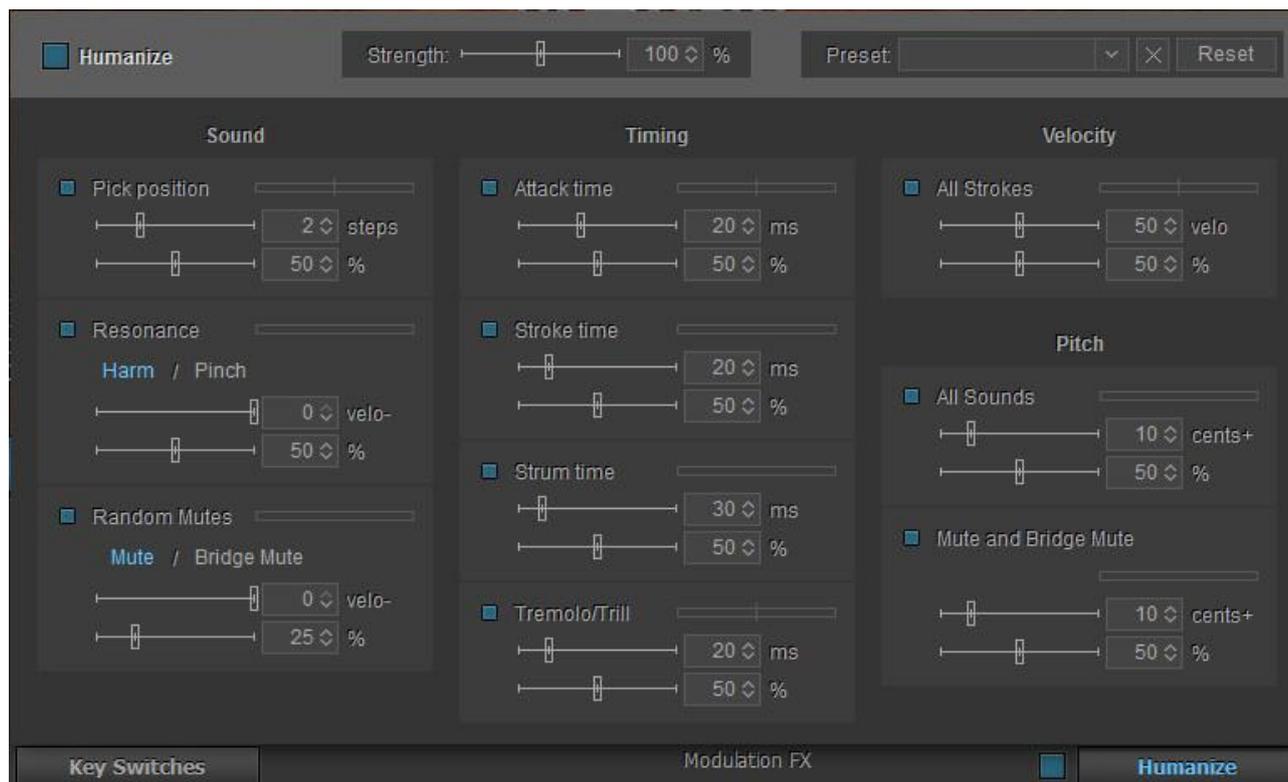
Auto Positive - Automatic Wah effect with positive filter envelope, adjust effect Depth, Frequency and filter Quality.

Auto Negative - Automatic Wah effect with negative filter envelope, adjust effect Depth, Frequency and filter Quality.

Modulation - you can adjust filter Quality (dB), lower Frequency (Hz), modulation Depth (%), modulation Phase ($^{\circ}$), modulation Rate (Hz, as well as sync the rate to host's tempo and select note duration in pull-down menu), select Trigger mode with on/off clickable LED.

Humanize

You can easily add more realism to the performance (both live played or step-recorded) using RealEight advanced Humanize option.



Humanize panel

Click on Humanize button in the lower right corner of RealEight window to open the Humanize panel. Activate the option by clicking on LED in the upper left corner (the LED is duplicated at the left of Humanize button, so you can switch it on/off even when Humanize panel is closed).

Humanize Panel has 10 parameters grouped under functional headings: Sound, Timing, Velocity, and Pitch. Each parameter has individual switch LED and two sliders. The upper slider controls the maximum range of parameter being applied (steps, milliseconds, velocity, cents), while the lower one controls the sensitivity of randomization in percentage (at 100% all playing notes will be affected).

Sound

Pick Position - randomly changes Pick Position parameter value.

- Set maximum range with the 'steps' slider.

Resonance - randomly triggers open string adjacent to the current played (works for 5 upper strings). This simulates the effect of a guitarist accidentally striking or resonating strings.

- Click on Harm or Pinch name to select Harmonics or Pinch Harmonics sound for resonance.
- Reduce the volume of resonance sound with 'velo' slider.

Random Mutes - randomly changes Sustain sound to Mute or Bridge Mute. This simulates the effect of a guitarist accidentally not pressing the string hard enough.

- Click on Mute or Bridge Mute name to select the sound.
- Reduce the volume of mute sound with 'velo' slider.

Timing

Attack Time - randomly changes the Attack Time parameter value.

- Set maximum value with 'ms' slider (0-50 msec. range)

Stroke Time - randomly delays the note-on time of all playing notes.

- Set maximum value with 'ms' slider (0-100 msec. range)

Strum Time - changes the time window between simultaneously played notes (interval, chord).

- Set maximum value with 'ms' slider (0-200 msec. range)

Tremolo/Trill - randomizes automatic tremolo or trill notes timing.

- Set maximum value with 'ms' slider (0-100 msec. range)

Velocity

All Strokes - changes velocity values of all playing notes.

Pitch

All Sounds - sharpens the pitch of all sounds.

- Set maximum value with 'cents' slider (0-50 cents range)

Mute and Bridge Mute - sharpens the pitch of Mute, Bridge Mute sounds.

- Set maximum value with 'cents' slider (0-50 cents range)

Master section

Big LED - switch on or off the Humanize option.

Strength (Master) - add/reduce sensitivity for all parameters proportionally.

Preset - save all setting made in Humanize window as user presets for future use.

To create a preset, click on Preset combo box to activate Edit mode, type in the preset name, and press Enter on computer keyboard. Preset will be saved within RealEight and added to preset list.

To delete preset simply click on Delete icon at the right.

Reset - click to reset all settings to factory default values.

Double- and Quad-Tracking

'Double- and Quad-Tracking' are techniques that are frequently used in recording guitar tracks. The guitarist plays the same part twice (one for Left channel, and one for Right channel), and even fourfold (two for Left channel, and two for Right channel). That gives the guitar track a nice, wide-spread stereo images and a thickness.



You can easily reproduce these techniques by just running RealEight multi output version (RealEight (4 mono), or RealEight (4 stereo) – these plugins provide 4 outs in your DAW's mixer), loading Double or Quad guitar patch, and then panning channels in your DAW's mixer and adding amps/FXs on each channel (Double patch will use first two audio output channels).



With RealEight multi output version you don't need to create copies of MIDI tracks and tweak them, but simply use the single track for MIDI data (played or step recorded), and RealEight sampler engine will process it to true double- or quad-tracked guitar parts with no identical samples playing simultaneously in different channels!

For wider sound you can add some delay between channels with Multi-Trk Delay slider found in Right menu bar->Timing panel.

To correctly configure RealEight multi outputs in your DAW, please refer to the DAW's User Manual for details.

MIDI Guitar Mode

If you prefer to use normal guitar via MIDI interface instead of MIDI keyboard you can switch to MIDI Guitar mode by selecting Guitar in Setup panel/Input device combo box.



MIDI Guitar mode has multi-channel MIDI input: 1-8 MIDI channels for 1-8 guitar strings accordingly, with each string/channel having independent pitch bend control, though Modulation, Aftertouch MIDI controllers, and all other FXs are common for all strings.

MIDI Guitar mode allows you to step record the guitar part with a pencil tool in your DAW on individual track/MIDI channel for each string. Note, that notes in a track going out of the appropriate string range will be played on the nearest string.

Importing/Exporting Global Settings

You can save all modifications you've made to Global Preset (external *.rgsong file) containing overall settings, which allows to easily export all changed data as a single file and import it when needed. Click on RealEight name/MusicLab logo to save/load the Global Settings:



Note, all current settings are saved within a project doc of your DAW as well.

If you want the current settings load every time you run RealEight, select 'Save As Default' item in the popup menu. To return factory default settings press Reset button in Setup panel and select 'Save As Default'.

RealEight Effect Table and Description

Tapping	Effect, Key/Pedal/Mod.Wheel switch
Mute	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Bridge Mute	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Harmonics	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Pinch Harmonics	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Scrapes	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Legato (1-2 Steps)	Effect, Key/Pedal/Mod.Wheel Switch
HammerOn (Legato)	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
Slide (Legato)	Effect, Key/Pedal/Velocity Switch
Repetition (NoteOff)	Key/Pedal/Velocity Switch
Tremolo	Effect, Key/Pedal/Velocity Switch
Tremolo 1-beat	Effect, Key/Pedal/Velocity Switch
Trill	Effect, Key/Pedal/Velocity Switch
Trill 1-shot	Effect, Key/Pedal/Velocity Switch
Slide Up	Key/Pedal/Mod.Wheel/Velocity Switch, P.Bender
SlideUp (trigger)	Key Switch
Slide Down (Fall)	Key/Pedal/Mod.Wheel/Velocity Switch, P.Bender
SlideDown (trigger)	Key Switch
Bend	Key/Pedal/Velocity Switch
Reverse Bend	Key/Pedal/Velocity Switch
Unison Bend	Key/Pedal/Mod.Wheel/Velocity Switch
Hold (1-2 Steps Mono)	Effect, Key Switch
Interval	Effect, Key/Pedal/ Mod.Wheel/Velocity Switch
Fret Position	Mouse, Key/Pedal Switch
PickPosition	Mouse, Key/Pedal Switch
String select	Key Switch
Wah-Wah	Effect, Key/Pedal/Mod.Wheel Switch
Violining	Effect, Key/Pedal/Mod.Wheel Switch
Sustainer (trigger)	Key/Pedal Switch, P.Bender
FeedBacker (trigger)	Key/Pedal/Mod.Wheel Switch, P.Bender,AffTouch
Chucka FullRange	Effect, Key/Pedal Switch
Chucka MuteKeys	Effect, Key/Pedal Switch
Chucka VeloLayers	Effect, Key/Pedal/Mod.Wheel/Velocity Switch
FretNoise (trigger)	Key/Pedal Switch
velo>	Key/Pedal/Velocity Switch
velo<	Key/Pedal/Velocity Switch
MonoBend (Lower note bend)	P.Bender, Mod.Wheel
VeloAdd (Velocity +/- control)	P.Bender

Tapping FX reduces initial sound attack and allows to produce legato Hammer-Ons/Pull-Offs both lower and higher the held note within 24 semitone range. Works in monophonic mode with initial note and Hammer-Ons/Pull-Offs played on the same string.

Mute FX - left-hand muted sound for notes in the Main zone. Note that the volume of the Mute FX is controlled by Mixer > Sounds > Mute slider.

BridgeMute FX - sound muted near the guitar bridge for notes in the Main zone. It is a similar effect to Mute FX, however produces different in timbre and more sustained sound. The tightness of Bridge Mute sound is controlled manually with the slider, or by velocity value of playing notes in case 1-3 position is selected in the numeric box. With 'off' selection velocity of playing notes will not change the length of Bridge Mute sound. Note, that the volume of the BridgeMute FX is controlled by FxMixer > Bridge Mute slider.

Harmonics FX - chromatic Artificial Harmonic sound for notes in the Main zone. Note that the volume of the Harmonics FX is controlled by FxMixer > Hrmnx slider.

PinchHarmonics FX - non-chromatic Pinch Harmonic sound for notes in the Main zone. Note that the volume of the PinchHarmonics FX is controlled by FxMixer > Pinch Hrmnx slider.

Scrapes FX - 60 different string scrapes, each controlled by the different notes in the Main zone ranging from E0 to E5. Note that the volume of the Scrapes FX is controlled by FxMixer > Scrapes slider.

HammerOn (Legato) FX produces Hammer-On/Pull-Off articulation. Hammer-On and Pull-Off guitar effects enable the playing of grace notes, mordents, trills with a single pick (and single initial attack). With Hammer-On enabled, press and hold a single key. When a second key is played, it plays without the initial attack and stops the first note. While continuing to hold the first key, release the second key and the first note is played again without the initial attack. When the second key is played higher than the second key, this is typically called a hammer-on. If the second key is lower than the first key, this is typically called a pull-off. The Hammer-On effect has a numeric box allowing the user to select in semi-tones the greatest distance between the first and second note played to be triggered with the Hammer-On/Pull-Off effect.

Slide (Legato) FX produces sliding articulation between two notes played legato (glissando with initial attack on the first note only). The Slide FX numeric box controls the maximum number of semi-tones between two notes that the slide FX will occur. The Slide FX slider controls the speed of the slide.

Repetition (NoteOff) FX automatically plays additional same note(s) on key(s) release allowing to produce semi-automatic tremolo with easy dynamics control.

Tremolo FX plays the note(s) repeatedly with the base speed provided by the Tempo setting (is synched with host's tempo). Multiples above the Tempo setting are controlled by the Tremolo FX pull-down menu with choices of 4th, 4T (triplet), 8th, 8T, 16th, 16T, 32nd, 32T, 64th, and 64T note durations. Note that while Tremolo FX is enabled any secondary notes played are sustained for as long as the first note is played.

Tremolo 1-beat FX works similar **Tremolo FX** but plays number of notes fitting in one beat of a measure before sustaining. The speed is controlled by the Tempo setting (is synched with host's tempo).

Trill FX plays a continuous trill for as long as the note(s) is held. The Trill FX numeric box specifies (in semi-tones above the note(s) played) the interval of the trill. The speed of the trill is controlled by the Tempo setting and the Trill FX pull-down menu with choices of 4th, 4T (triplet), 8th, 8T, 16th, 16T, 32nd, 32T, 64th, and 64T note durations.

Trill 1-shot FX plays a mordent ahead of the note(s) played. The Trill 1-shot FX numeric box specifies (in semi-tones above the note(s) played) the interval of the mordent. The speed of the mordent is controlled by the Tempo setting and the Trill 1-shot FX pull-down

menu with choices of 4th, 4T (triplet), 8th, 8T, 16th, 16T, 32nd, 32T, 64th, and 64T note durations.

SlideUp FX articulates automatic slide up TO the note(s) played. The SlideUp FX numeric box specifies (in semi-tones) the interval to start the slide from. The SlideUp FX slider controls the speed of the slide.

SlideUp (trigger) FX triggers automatic slide up FROM the sustaining note(s). Velocity of trigger key affects slide dynamics.

SlideDown FX articulates automatic slide down FROM the note(s) played. The SlideDown FX numeric box specifies (in semi-tones) the destination interval for the slide. The SlideDown FX slider controls the speed of the slide.

SlideDown (trigger) FX triggers automatic slide down FROM the sustaining note(s). Velocity of trigger key affects slide dynamics.

Bend FX articulates automatic bend up TO the note(s) played. The Bend FX numeric box specifies (in either 1 or 2 semi-tones) the interval to start the bend from. The Bend FX slider controls the speed of the bend.

ReverseBend FX articulates automatic 'pre-bend and release' down to the note(s) played. The ReverseBend FX numeric box specifies (in either 1 or 2 semi-tones) the interval to start reverse bend from. The ReverseBend FX slider controls the speed of the bend.

UnisonBend FX articulates two notes played, one being the played on the Main zone, and the second one starting from one or two semi-tones below is bent up to the note played. The UnisonBend FX numeric box controls if the second bent note starts from one or two semi-tones below. The UnisonBend FX slider controls the speed of the bend.

Hold FX provides sustain effect similar to the Sustain Pedal.

Interval FX plays additional note(s) to the one played in the Main zone. Interval FX pull-down menu options are: mono, 4th down, 5th up, Octave up, Power (5th + 4th up), Power2 (5th + 4th up), 2 Octaves up, Power Oct (two power chords in octave) and Power 2 Oct (two power chords 2 in octave). Note that when Interval FX is enabled, the keyboard is in monophonic mode and only a single key can be played at a time.

FretPosition FX controls the Capo along the fretboard. The FretPosition FX pull-down menu option of "F5 ... C6" allows the Capo to be controlled by the 8 Right Repeat keys starting from F5, up to C6 selecting the 17th fret. The FretPosition FX pull-down menu option of "Open" forces the Capo to remain open. The remaining pull-down menu options select one of the 20 frets (frets numbers marked with *, or ** correspond to the frets marked on the RealEight fretboard).

PickPosition FX controls the position of the pick on the strings to provide different sound (farther or closer to the bridge). The PickPosition numeric box ranges from -7 to +7. The Pick Position can also be changed via the main RealEight window by clicking and dragging the pick between the pickups on the high E-string.

String Select Fx allows to manually select the needed string, which lets you play as many notes on the selected string as possible for the string range.

Wah-Wah FX provides a traditional guitar wah-wah pedal effect. The Wah-Wah FX pull-down menu options for control are: MIDI-Control, Auto Positive, Auto Negative and

Modulation. Wah-Wah FX parameters can be modified in the Wah-Wah panel accessible from Right Menu bar in the upper right corner of the RealEight window.

Violining FX provides a volume swell with a smooth attack. The Violining FX slider controls the swell time.

Sustainer (trigger) FX triggers a 'sustainer' effect for any notes currently being played in the Main zone. The sound swells with every key press and can sustain as long as you trigger the effect.

FeedBacker (trigger) FX triggers a harmonic feedback for the note(s) being played in the Main zone (for the last in time pressed note in case of a chord). The FeedBacker FX pull-down menu provides the following harmonic selections: 8 (octave), 5' (octave and a fifth), 8' (two octaves), 5'' (2 two octaves and a fifth), 8'' (three octaves), and 5''' (three octaves and a fifth).

ChuckaFull FX provides muted chords in 4ths (so called, chucks) played in the Main zone which emulates 'chucka-chucka' guitar technique. Main zone is in mono mode with each key triggering individual chord/fret. With notes played from E3 and higher, ChuckaFull FX chords will move higher with each increased semi-tone along the fretboard. Right Repeat zone keys repeat the chords played in Main zone and can alternate between two string groups: F#5 triggers lower strings (5-4-3 strings), and G5 and higher trigger upper strings (3-2-1 strings). Left Repeat keys (D#1 and lower) repeat the last layer produced in Right Repeat zone.

ChuckaMuteKeys FX provides muted chords in 4ths with Black Repeat (Mute) keys (Main zone and white keys of Repeat zone continue to work normally). Right Repeat zone Mute keys can alternate between two string groups: F#5 triggers lower strings (5-4-3 strings), G#5 and higher trigger upper strings (3-2-1 strings), and Left Mute keys (D#1, C#1, etc..) repeat the last layer produced in Right Repeat zone.

ChuckaVeloLayers FX provides muted chords in 4ths played in the Main zone similar to ChuckaFull FX, however can produce 3 velocity controlled string groups by any key of the whole range. Low velocity strokes trigger 5-4-3 string layer, middle velocity strokes trigger 4-3-2 strings layer, while high velocity strokes trigger 3-2-1 string layer (the higher velocity value - the higher string group is triggered).

FretNoise (trigger) FX triggers FretNoise sound. Enabling the FX will switch off the automatic FretNoise generating on note-offs.

Velo > FX activates higher Velocity Switch FX selected in Higher Velocity Switch box.

Velo < FX activates lower Velocity Switch FX selected in Lower Velocity Switch box.

MIDI controller additional FXs

MonoBend FX (Pitch Bender and Modulation Wheel) applies pitch bending: a) only to the lowest of simultaneously played notes, b) only to the first bent and held note, allowing to emulate guitar specific single-string bending techniques: Unison Bend, Bend/Release combined with sustained note(s), etc...

Example 1 - assign MonoBend to P.Bender, press and hold 2-3 notes in Main zone, then move P.Bender - only the lower note will be bent (if you then move P.Bender back while holding all played notes only the first note will be affected).

Example 2 - assign MonoBend to P.Bender, play a note, move P.Bender to bend the note, then holding the first note bent play the second note higher or lower the first one - next note(s) will play their real pitch (if you then move P.Bender back while holding all played notes, only the first previously bent note will be affected).

VeloAdd FX (Pitch Bender) allows continuous adding/reducing velocity value (+/-) to the played notes.

Slide FX (Pitch Bender and Modulation Wheel) allows manual articulation of Up/Down slides from/to played note(s).

Parameter Automation MIDI CC and VST Map

RealEight	MIDI CC #	VST name
Output		
Volume	7	Volume
EQ, High	29	EQ-High
EQ, Low	30	EQ-Low
Tune		
Pitch, Coarse	12	PtchCrse
Pitch, Fine Tune	13	PtchFine
Modulation, Depth	14	ModDepth
Modulation, Freq	15	ModFreq
Mixer		
Mixer_Muted_sound, Volume	20	MxMuted
Mixer_Switch_FX, Volume	22	MxKeyFx
Mixer_FretNoise, on/off,	23	MxFrtN_
Mixer_FretNoise, Volume	24	MxFrtNse
Mixer_ReleaseNoise, on/off	25	MxRelN_
Mixer_ReleaseNoise, Volume	26	MxRelNse
Mixer_Pick/Noise, on/off	27	MxPckN_
Mixer_Pick/Noise, Volume	28	MxPckNse
Wah-Wah		
Wah-Wah, On/Off	47	WahOnOff
Wah-Wah_mode, select	46	WahMode
Controls		
Alter_sample, mode	52	AltSmple
Accent_High_Threshold	51	VelTrshH
Accent_Low Threshold	53	VelTrshL
Release_Time	55	RlseTime
Attack_Time	49	AtckTime
Strum_Time	56	StrmTime
Pick_Position, select	50	PickPos
Fret_Position, select	78	FretPos
Auto_Fret_Position, on/off	79	AutoFret
Hold, on/off	64	Hold
FX_HammerOn, select	35	HOFx_
FX_HammerOn, Steps	36	HOSSteps
Legato, on/off	18	Legato
BassZone, on/off	40	BassZone
BassZone, rangeHigh	41	BasRngUp

Controllers		
Pitch_BenderUp, Mode	57	PBupMode
Pitch_BenderDown, Mode	48	PBdnMode
PBenderUp_to_Slide, Range	58	PBSldRng
PBenderDown_to_Slide, Range	63	PBdnSlRn
PBender_to_Pitch, Range	59	PBPtcRng
Modulation_Wheel, Mode	60	WhMode
ModWheel_to_Slide, Range	61	WhSldRng
ModWheel_to_Pitch, Range	62	WhPtcRng
Aftertouch, Mode	75	AtchMode
Aftertouch_to_Pitch, Range	76	AtchRng
Velocity_Curve, select	77	VelCurve

MIDI CC Automation, value to parameter map

CC#12, PtchCrse		CC#13, PtchFine		CC#41, BassRang	
0-2	-12	64-127	0-(+100c)	0-1	E1
3-7	-11	64	0	2-5	F1
8-13	-10	0-64	0-(-100c)	6-8	F#1
14-18	-9	CC#36, HOSteps		9-12	G1
19-23	-8	0-5	1	13-15	G#1
24-29	-7	6-17	2	16-19	A1
30-34	-6	18-28	3	20-22	A#1
35-39	-5	29-40	4	23-26	B1
40-44	-4	41-51	5	27-29	C2
45-50	-3	52-63	6	30-33	C#2
51-55	-2	64-75	7	34-37	D2
56-60	-1	76-86	8	38-40	D#2
61-66	0	87-98	9	41-44	E2
67-71	1	99-109	10	45-47	F2
72-76	2	110-121	11	48-51	F#2
77-82	3	122-127	12	52-54	G2
83-87	4	CC#46, WahMode		55-58	G#2
88-92	5	0-22	MidiCC	59-61	A2
93-97	6	23-63	Auto(Pos)	62-65	A#2
98-103	7	64-86	Auto(Neg)	66-68	B2
104-108	8	87-127	Modulation	69-72	C3
109-113	9	CC#52, AltSmple		73-75	C#3
114-119	10	0-15	1	76-79	D3
120-124	11	16-47	2	80-82	D#3
125-127	12	48-79	3	83-86	E3
CC#48, PBdnMode		80-111	4	87-89	F3
0-10	As up	112-127	5	90-93	F#3
11-31	Off	CC#57, PBupMode		94-97	G3
32-52	Slide	0-12	Off	98-100	G#3
53-74	Pitch	13-38	Slide	101-104	A3
75-95	VeloAdd	39-63	Pitch	105-107	A#
96-116	MonoBend	64-88	VeloAdd	108-111	B3
117-127	Sustainer	89-114	MonoBend	112-114	C4
CC#50, PickPos		115-127	Sustainer	115-118	C#4
0-4	-7	CC#58, PBSldRng		119-121	D4
5-13	-6	0-5	1	122-125	D#4
14-22	-5	6-17	2	126-127	E4
23-31	-4	18-28	3	CC#60, WhMode	
32-40	-3	29-40	4	0-15	Off
41-49	-2	41-51	5	16-47	Slide
50-58	-1	52-63	6	48-79	Pitch
59-68	0	64-75	7	80111	Modulation
69-77	1	76-86	8	112-127	MonoBend
78-86	2	87-98	9	CC#75, AtchMode	
87-95	3	99-109	10	0-15	Off
96-104	4	110-121	11	16-47	Pitch
105-113	5	122-127	12	48-79	Modulation
114-122	6			80-111	Sustainer

123-127	7			112-127	Feedbacker
CC#59, PBpTcRng		CC#61, WhSlidRng		CC#62, WhPtcRng	
0-4	12	0-5	1	0-4	12
5-13	11	6-17	2	5-13	11
14-22	10	18-28	3	14-22	10
23-31	9	29-40	4	23-31	9
32-40	8	41-51	5	32-40	8
41-49	7	52-63	6	41-49	7
50-58	6	64-75	7	50-58	6
59-68	5	76-86	8	59-68	5
69-77	4	87-98	9	69-77	4
78-86	3	99-109	10	78-86	3
87-95	2	110-121	11	87-95	2
96-104	1	122-127	12	96-104	1
105-113	1/2	CC#78, FretPos		105-113	1/2
114-122	1/4	0-3	0	114-122	1/4
123-127	1/8	4-10	1	123-127	1/8
CC#63, PBdnSlRn		11-17	2	CC#77, VelCurve	
0-5	1	18-24	3	0-21	1
6-17	2	25-31	4	22-63	2
18-28	3	32-38	5	64-105	3
29-40	4	39-45	6	106-127	4
41-51	5	46-52	7	CC#76, AtchRng	
52-63	6	53-59	8	0-15	2
64-75	7	60-67	9	16-47	1
76-86	8	68-74	10	48-79	1/2
87-98	9	75-81	11	80-11	1/4
99-109	10	82-88	12	112-127	1/8
110-121	11	89-95	13		
122-127	12	96-102	14		
		103-109	15		
		110-116	16		
		117-123	17		
		124-127	18		

NRPN map

Format: (<NRPN MSB>, <NRPN LSB>, <Data Entry MSB>[, <DataEntry LSB>]) - <Description>. {<Comment>.}

(0, key, msb, lsb) - Set Pitch Bend for the key to ((msb<<7) | lsb)-8192.

(1, key, fx) - Select FX for the key, sustain pedal or velocity of a stroke.
key - key id, see Key Map below.
fx-5 - fx id, see FX Map below.

(2, key, on) - Switch the key fx.
key - key id, see Key Map below.
on - 0/1 for Off/On.

(3, key, opt) - Set options of the key fx.
key - key id, see Key Map below.
opt - bit field: <toggle> | (<do sustain> << 1) | (<play stroke> << 2)

(4, key, msb, lsb) - Set first parameter of the key fx if any, ignored otherwise.
key - key id, see Key Map below.
((msb<<7) | lsb)-8192 - value of the parameter 1.
For specific parameter ranges and meanings see FX Map below.

(5, key, msb, lsb) - Set second parameter of the key fx if any, ignored otherwise.
key - key id, see Key Map below.
((msb<<7) | lsb)-8192 - value of the parameter 2.
For specific parameter ranges and meanings see FX Map below.

Key Map

Format: <key id> - <Description>. {<Comment>.}

- 0 - Sustain Pedal. Available fxes -5..34.
- 1 - Upper velocity zone. Available fxes 0..34.
- 2 - Lower velocity zone. Available fxes 0..34.
- 3..18 - C0..D#1 Key switches. Available fxes -2..34.
- 19..35 - D#5..G6 Key Switches. Available fxes -2..34.
- 36 - Modulation. Available fxes -2..34.

FX Map

Format: <fx id>, <name> [, <par1 rng>[, <par2 rng>] - <parameters' names>]

- 2, velo upper
- 1, velo lower
- 0, Tapping
- 1, Mute

2, BridgeMute,	0..128, 0..3	- ctrl val, velo sensitivity
3, Harmonics		
4, PinchHarmonics		
5, Slap		
6, Scrapes		
7, HammerOn(Legato),	0..48	- range
8, Slide(Legato),	0..48, 30..150	- range, time
10, Repeat(NoteOff)		
11, ChuckaFull		
12, ChuckaMuteKeys		
13, Tremolo,	0..9	- duration id (see Duration Map)
14, Tremolo 1 beat,	0..9	- duration id (see Duration Map)
15, Trill,	1..12, 0..9	- interval, duration id (see Duration Map)
16, Trill 1 shot,	1..12, 0..9	- interval, duration id (see Duration Map)
17, SlideUp,	1..12, 40..500	- range, time (ms)
18, SlideUpTrig,	1..12, 40..500	- range, time (ms)
19, SlideDown,	1..12, 40..500	- range, time (ms)
20, SlideDownTrig,	1..12, 40..500	- range, time (ms)
21, Bend,	1..2, 100..800	- interval, time (ms)
22, ReverseBend,	1..2, 100..800	- interval, time (ms)
23, UnisonBend,	1..2, 100..800	- interval, time (ms)
25, Hold		
27, Sustainer(trigger)		
28, Violining,	300..2000	- time (ms)
29, Interval,	0..8	- interval id (see Interval Map)
30, FretPosition,	-1..20	- fret position id (see Fret Position Map)
31, PickPosition,	-7..+7	- pickup position
32, Wah-Wah,	0..3	- wah-wah mode id (see Wah-Wah Mode Map)
33, FeedBack(trigger),	0..5	- feedback interval id (see Feedback Interval Map)
34, ChuckaVeloLayer		
35, VeloMute	1..127	- velocity
36, Legato		
37, String	0..8	- 0..7 - string 1..8, 8 - auto
39, FretNoise		- Fret Noise

Duration Map

Format: <duration id>, <description>

0, 4th
1, 4T
2, 8th
3, 8T
4, 16th
5, 16T
6, 32nd
7, 32T
8, 64th

Interval Map

Format: <interval id>, <description>

0, mono
1, 4th down
2, 5th up
3, Octave
4, Power
5, Power2
6, 2 Octaves
7, Pwr Oct
8, Pwr 2 Oct

Fret Position Map

Format: <fret position id>, <description>

-1, D#5..C6
0, Open
1, Fret 1
2, Fret 2
3, Fret 3 *
4, Fret 4
5, Fret 5 *
6, Fret 6
7, Fret 7 *
8, Fret 8
9, Fret 9 *
10, Fret 10
11, Fret 11
12, Fret 12 **
13, Fret 13
14, Fret 14
15, Fret 15 *
16, Fret 16
17, Fret 17 *
18, Fret 18
19, Fret 19 *
20, Fret 20

Wah-Wah Mode Map

Format: <wah-wah mode id>, <description>

0, MIDI Control

- 1, Auto Positive
- 2, Auto Negative
- 3, Modulation

Feedback Interval Map

Format: <feedback interval id>, <description>

- 0, 8
- 1, 5'
- 2, 8'
- 3, 5"
- 4, 8"
- 5, 5'''

Contacting MusicLab

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